

Appl. No. 09/997,906

REMARKS/ARGUMENTS

Thorough examination and careful review of the application by the Examiner is noted and appreciated.

The Examiner has rejected claims 1-22.

The Examiner has objected to claim 23.

Claims 1, 13, 18 have been amended.

Claim 23 has been cancelled.

Claims 1-22 are pending.

The changes in the claims do not introduce new matter but clarify matters shown and described in the application as filed. The foregoing amendments and following remarks are believed to be fully responsive to the Office Action mailed July 28, 2004 and render all currently pending claims at issue patentably distinct over the references cited by the Examiner. The foregoing amendments are taken in the interest of expediting prosecution and there is no intention of surrendering any range of equivalents to which Applicant would otherwise be entitled in view of the prior art. Reconsideration and examination of this application is respectfully requested in light of the foregoing amendments and the following remarks.

EXAMINER'S OFFICE ACTION

In the July 28, 2004 Office Action (hereafter "OA") referenced above, the Examiner:

objected to claim 23 as being dependent on a rejected base claim;

rejected claims 1, and 7-9 under 35 USC §103(a) as being unpatentable over SUZUKI et al. U.S. Patent No. 4,594,638) in

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view of MASIA et al., U.S. Patent No. 5,235,286 (hereinafter, "MASIA");

rejected Claims 13-20 under 35 USC §103(a) as being unpatentable over MASIA in view of SUSUKI

rejected Claims 2-6 and 22 under 35 USC §103(a) as being unpatentable over SUSUKI in view of MASIA as applied to claim 1 above and in further view of Prince et al., United Kingdom Foreign Document No. GB 2276948 A (hereinafter, "PRINCE"); and

rejected Claims 10-11, and 21 under 35 USC §103(a) as being unpatentable over SUZUKI in view of GOTT, U.S. Patent No. 6,175,310 B1 (hereinafter, "GOTT");

rejected Claim 12 under 35 USC §103(a) as being unpatentable over SUSUKI in view of MASIA and GOTT as applied to claim 1 above and in further view of Takahashi et al, U.S. Patent No. 4,918,977 (hereinafter, "TAKAHASHI").

Objections to the Claims

The substance of claim 23 is incorporated into independent claim 1. Accordingly, claim 23 is cancelled and the objection to claim 23 is obviated.

Rejections under 35 USC § 103(a)

Claims 1, and 7-9 stand rejected under 35 USC §103(a) as being unpatentable over SUZUKI et al. U.S. Patent No. 4,594,638) in view of MASIA et al., U.S. Patent No. 5,235,286 (hereinafter, "MASIA");

Claims 13-20 stand rejected under 35 USC §103(a) as being unpatentable over MASIA in view of SUSUKI

Claims 2-6 and 22 stand rejected under 35 USC §103(a) as being unpatentable over SUSUKI in view of MASIA as applied to claim 1 above and in further view of PRINCE;

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rejected Claims 10-11, and 21 under 35 USC §103(a) as being unpatentable over SUZUKI in view of GOTT; and

rejected Claim 12 under 35 USC §103(a) as being unpatentable over SUSUKI in view of MASIA and GOTT as applied to claim 1 above and in further view of Takahashi et al, U.S. Patent No. 4,918,977 (hereinafter, "TAKAHASHI").

The rejection of claims 1-22 based on SUZUKI, MASIA, PRINCE, GOTT, and TAKAHASHI, is respectfully traversed.

Independent Claims 1, 13, and 18 have been amended to further include the feature of a conductive drip tray that determines a presence and a location of a leak in a conduit.

Thus, the present invention defines a conductive drip tray having a conductive path that provides little resistance when the liquid leak penetrates the sheath and drips onto the tray.

Support for amending independent claims 1, 13, and 18 is disclosed in Applicants' Specification, paragraphs 0034, 0042, and FIGS. 5 and 8.

"[D]rip tray 83 provides a portion of the electrical circuit needed to determine the presence and **location** of a fluid leak by the sensing wire 85. A fluid leak bridging the sensing wire 85 and the drip tray 83 is labeled 87 in Fig. 8B. The portion of the sheath 86 appearing mottled or dotted represents absorbed fluid 87. The bridged fluid 87 effectively provides an electrical current path between the sensing wire 85 and drip tray 83 at a point in the run of sensing wire 85. The ionic nature of the fluid makes this current path an effective short between the

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sensing wire 85 and the drip tray 83. **The presence and location of such a fluid short along the sensing wire may be inferred by monitoring electrical parameters of the sensing wire"** Applicants' Specification, paragraph 0042.

Thus, the determination of the **location** of the liquid leak penetration through the electrically insulative sheath onto the tray is determined by aid of the drip tray of the present invention.

PRINCE provides an apparatus and method of providing a conductive drip tray able to determine when a leak dripping into the drip tray has exceeded a predefined height. See PRINCE, Abstract, and FIG. 1. Nowhere does PRINCE teach finding the exact location of the leak, but rather the PRINCE drip tray only teaches indication of a presence of a leak.

Additionally, neither SUSUKI, MASIA, GOTT, nor TAKAHASHI disclose the use of a leak locating drip tray as disclosed in Applicant's Specification. Thus, none of the references cited herein alone or in combination teach or suggest the use of the drip tray as disclosed in Applicant's Specification.

The references fail to provide the necessary motivation of one skilled in the art to combine the individual teachings to arrive at the Appellants' invention. The references, even when combined, fail to yield Appellant's invention.

The prior art of record does not teach, suggest or remotely hint alone or in combination the insulative, porous sheath and

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drip tray of the present invention. Therefore, claims 1-22 are patentably distinct from the prior art of record.

The foregoing amendments further clarified some of the features of the liquid leak detector. It is believed that the present invention as amended is novel and non-obvious over the references relied upon by the examiner.

Additionally, as discussed previously, because none of the references cited and relied upon by Examiner disclose, teach or suggest all of the features alone or in combination of the claimed invention, the 103 rejections are believed to be obviated.

Based on the above, it is respectfully submitted that the amended claims 1, 13, and 18, claims depending therefrom are in condition for allowance, which allowance is earnestly solicited.

Based on the foregoing, the Applicant respectfully submits that all of the pending claims are now in condition for allowance. Such favorable action by the Examiner at an early date is respectfully solicited.

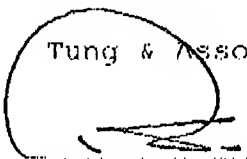
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In the event that the present invention is not in a condition for allowance for any other reasons, the Examiner is respectfully invited to call the Applicant's representative at his Bloomfield Hills, Michigan office at (248) 540-4040 such that necessary action may be taken to place the application in a condition for allowance.

Respectfully submitted,

Tung & Associates



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